

REMARKS

Claims 2-7 and 12-13 are pending in the application and stand ready for further action on the merits.

Claims 1 and 8-11 have been cancelled based on there being directed to non-elected inventions based on the Examiner's prior restriction requirements.

The amendment made herein to claim 2 and the addition of new claims 12-13 does not incorporate new matter into the application as originally filed. For example, support for the amendments occur in pending claims 6-7, and in claim 8 (now cancelled), and in the specification at pages 7, 8 and 15. The amendment to claim 5 finds support at page 7 of the specification and results in claim 5 being proper for consideration with the previously elected invention of claims 2-4 and 6-7. It is noted that the amendment to claim 6 simply corrects a grammatical error and does not affect the scope of the claim.

Additionally, it is noted that the non-ionic surfactant of formula (IV) has been deleted from claims 2 and 5, based on the Examiner's prior restriction requirement, and the Examiner's comments relating thereto at paragraphs "1." and "2." of the outstanding office action.

It is noted that newly added claim 12 is based on claim 2, but recites at the end thereof "wherein, the blending ratio in the softener composition of the component (A') to the component (B') by weight, which is (A')/(B'), is 50/1 to 1/2, and the blending ratio of the component (A') to the softener composition is 3 to 50 weight %." This added language finds support in claims 6-7.

Claim Rejections - 35 USC § 103

Claims 2-4 and 6-7 have been rejected under 35 USC § 103(a) over US 5,854,201 (Behler). Claims 2-4 and 6-7 have also been rejected under 35 USC § 103(a) over US 5,854,201 (Behler) in view of US patent 5,296,622 (Uphues). Reconsideration and withdraw of each of these rejections is respectfully requested based on the following considerations.

The Present Invention and Its Advantages

The present invention as recited in independent claims 2 and 12 is directed to a softener composition, which contains a cationic surfactant component (A') and a nonionic surfactant component (B').

The cationic surfactant component (A') comprises quaternary ammonium salts. The Salts are composed of salt (I), (II) and (III), they are represented by the formulae in Claims 2 and 12.

Salt (I) has only one alkyl, alkenyl or hydroxy alkyl group which has 1 to 6 carbon atoms (i.e., R^4 is short chain) and three long chain alkyl or alkenyl groups which have 8 to 40 carbon atoms (i.e., $R^1 - R^3$ are long chains). Accordingly, Salt (I) has 1 short chain and 3 long chains, Salt (II) has 2 short chains (R^4) and 2 long chains (R^1 and R^2), and Salt (III) has 3 short chains (R^4) and 1 long chain (R^1).

Claims 2 and 12, also recite that the amount of Salt (I) to be more than 50% of total of the Salt (I), (II) and (III), and recite that the ratio of Salt (III) to the sum total of (I), (II) and (III) to not more than 10%.

The nonionic surfactant (B') is a compound of formula (VIII) or (IX). Importantly, none of the nonionic surfactants encompassed by formulas (VIII) and (IX) recited in each of claims 2 and 12 are taught or otherwise found in the cited art of Behler US '201 or Uphues US '662.

Independent claim 12 also positively recites that "the blending ratio in the softener composition of the component (A') to the component (B') by weight, which is $(A')/(B')$, is 50/1 to 1/2, and the blending ratio of the component (A') to the softener composition is 3 to 50 weight %."

Still further, dependent claim 13 (which depends from each of claims 2 and 12), also recites that prior to mixing with water "a total amount of the component (A') and the component (B') in the softener composition is not less than 70 weight %", which is nowhere found in the cited art of record.

The inventive softener compositions exhibit excellent softening properties and biodegradability.

Incorporation of Earlier Remarks

In the response of December 4, 2003, the Applicants responded to the instant rejections at page 11, line 8 to page 15, line 19 thereof. Such remarks are incorporated herein in their entirety inasmuch as they are still appropriate to evidence the non-obviousness of the instant claims 2-7 and 12-13 under consideration at present.

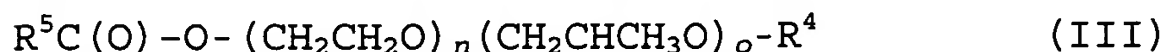
Distinctions Over the Cited Art

Behler '201

As a first distinction, the Behler '201 reference at column 2, line 56 to column 3, line 13, describes its nonionic emulsifiers as follows:

b) a nonionic emulsifier selected from the group of

b1) ethoxylated and/or propoxylated fatty acids or fatty acid esters corresponding to formula (III):



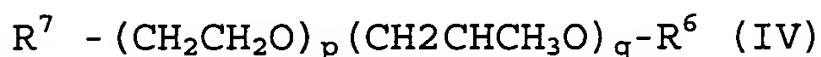
in which

R^5CO is an aliphatic acyl radical containing 6 to 22 carbon atoms,

n and o independently of one another represent a number of 0 to 20, the sum of $n+o$ being ≥ 1 ,

R^4 is H or an aliphatic hydrocarbon radical containing 1 to 12 carbon atoms,

b2) end-capped fatty alcohol polyglycol ethers corresponding to general formula (IV):



in which

R^7 is an aliphatic hydrocarbon radical containing 6 to 22 carbon atoms,

p and q independently of one another are numbers of 0 to 20, the sum of $p+q$ being ≥ 2 ,

R^6 is an aliphatic hydrocarbon radical containing 1 to 12 carbon atoms.

Importantly, such compounds of the Behler '201 reference do not fall within the scope of the instant claims, and moreover do not render obvious any of the compounds encompassed by instant formulas (VIII) or (IX) recited in present claims 2 and 12. Based on such considerations, it is submitted that the outstanding rejection is improper, since no motivation is provided by the cited

Behler '201 to arrive at a softener composition as instantly recited in the pending claims, which contains "at least one nonionic surfactant selected from the group consisting of compounds represented by formulae (VIII) and (IX)".

As a second distinction, the cited Behler '201 reference also fails to teach or describe any aspect of the instant invention, wherein other ratios or amounts (%) of ingredients are recited in the claims (*e.g.*, see claims 2 and 12).

For example, the cited Behler '201 reference fails to teach or otherwise render obvious the provision of ratios as recited in instant claim 12, wherein "the blending ratio in the softener composition of the component (A') to the component (B') by weight, which is (A')/(B'), is 50/1 to 1/2, and the blending ratio of the component (A') to the softener composition is 3 to 50 weight %."

Likewise, there is no teaching in the cited Behler '201 reference that would motivate one of ordinary skill in the art to use a combination of the Inventors salts (I), (II) and (III) in the amounts recited in claims 2 and 12, wherein:

"...the ratio of the quaternary ammonium salts represented by the formula (I) to the total amount of the quaternary ammonium salts represented by the formulae (I), (II) and (III) exceeds 50 weight % and the ratio of (III) to the sum total of (I), (II) and (III) is not more than 10 %..."

Thus, because the Behler '201 reference does not suggest that the quaternary ammonium salts (I) should be present in an amount of more than 50%, or that the ratio of the quaternary ammonium salts (III) to the sum total of the quaternary ammonium salts (I), (II) and (III) is not more than 10 %, it therefore completely fails to teach a required aspect of the instant invention.

As a second distinction, the Behler '201 reference at column 1, lines 10-17 thereof also describes its invention as follows:

This invention relates generally to textile treatment compositions and, more particularly, to textile softener concentrates with improved dispersibility in cold water based on pentaerythritol and/or dipentaerythritol fatty acid partial esters and a special emulsifier combination of certain quaternary nitrogen compounds and certain nonionic compounds, to a process for their production and to the use of the emulsifier system. (Emphasis Added)

Likewise, at column 4, lines 31-42 the Behler '201 reference discloses as follows:

The textile softener concentrates according to the invention contain pentaerythritol and/or dipentaerythritol fatty acid partial esters as the principal component actually responsible for softness. Corresponding pentaerythritol and/or dipentaerythritol fatty acid partial esters are described in detail for this application in EP-A-0 494 769 which has already cited. The pentaerythritol and dipentaerythritol fatty acid partial esters described therein are included in the disclosure of the present application. Within this group,

pentaerythritol difatty acid esters of C₁₆₋₂₂ fatty acids are particularly preferred, pure or technical pentaerythritol distearate being most particularly preferred. (Emphasis Added)

Further, at column 4, lines 53-58, the Behler '201 reference discloses as follows.

The softener concentrates according to the invention preferably contain

70 to 95% by weight of pentaerythritol and/or dipentaerythritol fatty acid partial esters,

5 to 30% by weight of the described emulsifier combinations and 0 to 20% by weight of typical auxiliaries. (Emphasis Added)

In contrast to such teachings at columns 1 and 4 of the Behler '201 patent, the instant invention does not recite the presence of a pentaerythritol and/or dipentaerythritol fatty acid partial ester as the principal component. Instead of, or in contrast to, such teachings in the Behler '201 patent, the present invention provides for a softener composition wherein prior to a mixing with water "a total amount of the component (A') and the component (B') in the softener composition is not less than 70 weight %." (See instant claim 13).

As such, it is submitted that it entirely impossible for the teachings of the Behler '201 reference to lead one of ordinary skill

in the art to arrive at the present invention as claimed. Instead, the Behler '201 teachings lead one away from the present invention, by its central teaching and ambition to provide for *textile softener concentrates containing pentaerythritol and/or dipentaerythritol fatty acid partial esters as the principal component actually responsible for softness.* (See Column 4, lines 31-34).

Accordingly, it is submitted that there are no teachings in the Behler '201 reference that would allow one of ordinary skill in the art to arrive at the instant invention as claimed. This conclusion is based on the fact that: (i) Behler '201 never teaches or otherwise provides for a compound of formula (VIII) or (IX) as recited in instant claims 2 and 12; (ii) in Behler '201 there is no teaching or description of the requirement of a "blending ratio in the softener composition of the component (A') to the component (B') by weight, which is (A')/(B'), is 50/1 to 1/2, and the blending ratio of the component (A') to the softener composition is 3 to 50 weight %" as recited in claim 12; (iii) in Behler '201 there is no teaching or description of the requirement that the amount of the quaternary ammonium salts (I) be more than 50% of total of the quaternary ammonium salts (I), (II) and (III), and that the ratio of the quaternary ammonium salts (III) to the sum total of the quaternary ammonium salts (I), (II) and (III) is not

more than 10% (as recited in claims 2 and 12); and (iv) Behler '201 actually teaches away from, the recitation in claim 13 that prior to a mixing with water "a total amount of the component (A') and the component (B') in the composition is not less than 70 weight %".

Uphues '622

The deficiencies of Behler '201 are not cured by the disclosure of Uphues '662. Accordingly, even upon combining the disclosures of Uphues '662 and Behler '201 one of ordinary skill in the art would not be motivated to arrive at the instant invention as claimed. Absent such teachings and motivation in the cited art, the outstanding rejections cannot be sustained.

CONCLUSION

Based on the amendments and remarks presented herein the Examiner is respectfully requested to issue a notice of allowance indicating that each of the pending claims 2-7 and 12-13 are now in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Bailey (Reg. No. 32,881) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 

John W. Bailey, #32,881

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000

JWB/jwb/enm
0425-0881P